NOVEMBER/DECEMBER 2025

FIM53 — PYTHON PROGRAMMING

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

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1. List any four features of Python.
2. Differentiate list and tuple.
3. Write the syntax of a for loop in Python.
4. Write the use of raise keyword.
5. Define class attributes.
6. What is method invocation in Python?
7. What is file handling?
8. How do you check the mode of a file?
9. When the uses prefer database in web programs?
10. Write a note on cursor object.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain various operators in Python with examples.

Or

(b) Illustrate string manipulation with examples.

12. (a) Write a Python program to find the factorial of a number using while loop.

Or

(b) Write a function in Python that accepts variable length arguments and finds their sum.

13. (a) How can you define class in Python? Explain.

Or

(b) Discuss the concept of inheritance with a suitable program.

14. (a) Write a short note on built-in functions for file handling in Python.

Or

(b) Discuss briefly about the data object and its methods in Python with examples.

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15. (a) Write the steps followed for connecting database in Python.

Or

(b) Explain constructors and its uses with an example code.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Demonstrate the methods in Dictionaries.

17. Categorize the different control structures in Python with flowcharts and suitable examples.

18. Design a Python class Bank Account with methods for deposit, withdrawal, and balance enquiry.

19. Write a Python program that reads a text file and counts the number of words, lines, and characters.

20. Explain about Python database adaptors.

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